

diameter, and the tail about three times this diameter in length.

Dujardin saw and has figured these cells and their filaments *en masse*, and observed polymorphism in the former, from which he compared them to a *Volvox*, and inferred that the use of the filaments was "pour déterminer à la surface le déplacement de l'eau et par suite les courans dans les oscules" (Ann des Sc. Nat. 2nd ser. t. x. pp. 9, 10). But he did not see these filaments on the surface of *Spongilla*, nor on the lining membrane of its canals, neither have I been able to detect them in either of these situations. Huxley has also described and figured similar bodies in a species of "*Tethya*" (Ann. and Mag. of Nat. Hist. vol. vii. p. 373, 1851), which he considers "spermatozoa;" and I know not what else to consider those above described, if they are not the spermatozoa or zoosperms of *Spongilla*.

The portions of *Spongilla* which were thrown into the tank I had had by me for seven or eight years, and the period during which the ova while in their capsules will retain their vitality, if not some parts of the dried skeleton also, seems almost indefinite.

Bombay, 28th July 1854.

EXPLANATION OF PLATE XI*.

- Fig. 1. Zoosperm of *Spongilla* about 1-4300th inch in diameter, magnified; passive condition.
 Fig. 2. Ditto ditto active; stationary or progressive.
 Figs. 3, 4. Ditto ditto polymorphic.
 Fig. 5. Ditto ditto ditto, showing the insertion of the tail drawn forwards by the polymorphism of the cell.
 Fig. 6. Portion of *Spongilla*, magnified, presenting tails of zoosperms in active motion. Natural size about 1000th of an inch in diameter.

XXXI.—On the Genus *Lycium*. By JOHN MIERS, Esq.,
 F.R.S., F.L.S. &c.

[Concluded from p. 194.]

3. MACROCOPE. *Corollæ tubus laciniis limbi brevior : stamina longe exserta.* Species omnes *Neogææ*.

* *Filamenta imo glandula lineari carnosâ margine ciliatâ donatâ.*

60. *Lycium filifolium*, Gill.;—inermè, glaberrimum, ramosissimum, ramulis virgatis, cinereis, striatis, nodis cupulatis; foliis alternis, vel subfasciculatis, longe et anguste linearibus, utrinque acutis, crassiusculis; floribus solitariis, gracile pedunculatis, calyce poculiformi, subpubescente, membranaceo, 5-6-costato, 5-6-dentato, dentibus obtusiusculis, ciliatis;

corollæ tubo calyce 3-plo longiore, infra medium coarctato, cylindrico, imo incrassato annulo barbato cincto, fauce ampliato, limbi laciniis 5-6, oblongis, tubo sub-brevioribus, margine ciliatis, staminibus 5-6, in coarctationem insertis, filamentis imo geniculatis, glandula elongata margine dense barbata donatis, superne lævibus, subæqualibus, exsertis; stylo staminibus excedente.—Prov. "Buenos Ayres" Argentinorum.—*v. s. in Herb. Hooker.* (Bahia Blanca) Darwin, no. 509. (Pampas, ad Monte de Loro) Gillies.

This is evidently a shrub with long slender branches, much resembling *L. vimineum* in habit, but distinguished by a different floral structure: the leaves are 4 to 9 lines long; in Dr. Gillies' specimen they are not more than $\frac{1}{4}$ line broad, in Mr. Darwin's they are $\frac{1}{4}$ to $\frac{3}{4}$ line broad: the very slender pedicels are $1\frac{1}{2}$ line long; the calyx is narrow, somewhat pubescent, and 1 line in length; the tube of the corolla is $1\frac{1}{2}$ line, the border 1 line long; the stamens reach the length of the segments of the border*.

Var. β. minutifolium;—ramulis multo gracilioribus, foliis brevioribus, fasciculatis aut alternis, glaberrimis; calycis dentibus ciliatis; corolla pentamera; bacca parvula, globosa, coccinea, calyce immutato suffulta.—Patagonia (*Tweedie*).

The branchlets here are almost filiform, the leaves 2 to $2\frac{1}{4}$ lines long, $\frac{1}{4}$ line broad, the peduncle is $1\frac{1}{2}$ line, the calyx of similar length, the corolla 3 lines long, and the berry 2 lines in diameter.

61. *Lycium salsum*, R. & P. Fl. Per. ii. 46. tab. 183 a; Dunal in DC. Prodr. xiii. 519. *L. gracile*, Meyen? Nov. Act. Ac. Cæs. Leop. xix. Sup. i. 389;—biorgyale, subscandens, omnino glaberrimum, ramulis gracillime virgatis, angulato-costatis, spinis acicularibus sæpe munitis: foliis subfasciculatis, spathulato-linearibus, glaberrimis: floribus solitariis pendulis, pedunculo capillari folio longiore, calyce parvo, poculiformi, 5-costato, inæqualiter 5-dentato, dentibus apice ciliatis; corollæ albo-purpureæ tubo brevi calyce longiore, extus glabro, infra medium coarctato, fauce ampliato, limbi laciniis tubo sublongioribus, oblongis, margine ciliatis; staminibus 5 æqualibus, longe exsertis, filamentis in coarctationem tubi sistentibus, circa basin geniculatam fascicula densa oblonga pilorum donatis, istis cum fasciculis totidem tubo adnatis alternantibus.—In Peruviae litoribus.—*v. s. in herb. Hook.* Lurin et Pachacamac (*Mathews*, no. 450).

* This species with floral analysis is shown in the 'Illustr. South Amer. Plants,' vol. ii. plate 72 B.

This is a trailing shrub with long slender pendulous branches, growing in saline places near the sea, and having much the habit of *L. pendulinum*. The leaves have a saline taste, whence its specific name; they are about 4 lines long, 1 line broad, and veinless; the peduncle is slender, filiform, $2\frac{1}{2}$ to 3 lines long; the tubular calyx is 1 line long, smooth, with five unequal, short, pubescent teeth; the tube of the corolla is $1\frac{5}{8}$ line in length, the segments of the border are somewhat longer, narrow, oblong and subciliated on the margins: the filaments are inserted at a quarter the length of the tube from the bottom, and a little above their smooth geniculated base are furnished with a dense oblong brush of hairs; they reach the extremity of the segments of the border, and are therefore much exerted when the flower is expanded*.

62. *Lycium Chilense*, Miers, Trav. ii. 531; Bertero, Mem. Tur. xxxiii. 133. tab. 44; Dunal in DC. Prodr. xiii. 514. *L. nutans*, Pöpp. *L. canum*, Gill. MSS. Walp. Rep. iii. 112;—subinermis, rarissime spinescens, ramulis inermibus pubescentibus, angulato-costatis, lineis helvolis e nodis cupularibus utrinque decurrentibus, foliis alternis, raro subfasciculatis, ovatis vel oblongis, sæpe angustis, subacutis, aut interdum obtusiusculis, imo in petiolum brevissimum attenuatis, integris, utrinque breviter pubescentibus, pilis brachiato-articulatis; floribus solitariis, pedunculo piloso, calyce ad medium æqualiter 5-fido, utrinque glauco-piloso, dentibus acutis, ciliatis; corolla extus valde griseo-pubescente, tubo subinfundibuliformi, 5-sulcato, flavido, paullo supra basin constricto, annuloque dense barbato cincto, limbi laciniis 5, oblongis, patentibus, tubo flavido parum longioribus, intus glabris, versus marginem pallescentibus, centro lilacinis, lineis purpureis notatis; staminibus 5 e medio tubi ortis, subæqualibus, filamentis supra geniculum basalem lævem glandula lineari glabra margine densiter villosa donatis, et cum fasciculis totidem tubo adnatis alternantibus hinc faucem cludentibus, superne glaberrimis, attenuatis et longe exsertis, ovario tubi circumscissi reliquo semi-involuto, stylo staminibus paullo longiore, stigmatibus sub-2-lobo; bacca ovali, coccinea, apiculata, calyce suffulta.—Chile, præsertim in litoribus.—*v. v.*†

This may be considered as the type of the many South American species, which form a well-marked group, distinguished principally by their peculiar brachiate pubescence, the

* A drawing of this plant with analytical details is given (*loc. cit.*) in plate 72 C.

† This plant with sectional details is shown (*loc. cit.*) in plate 72 D.

hairs being always articulated, often short, and sometimes only visible under the lens: they are also remarkable for the peculiar glandular long adnate scale with fimbriated or barbated margins attached to the lower portion of the stamens, and which by the geniculation of the filaments at their origin, compose a fornix that closes the tube of the corolla: they might almost form a distinct section or subgenus (*Celidophora*). The angles of the branchlets generally exhibit raised reddish-coloured ribs which spring from each side of the bony cupular or bracket-shaped node seen at the origin of each branch or leaf. In this species the leaves are often small, in some cases almost linear, in others ovate, varying from 4 to 8 lines in length, and 1 to 3 lines in breadth: the petiole is almost obsolete: the peduncle is 3 lines, the calyx 2 lines long, which offers the peculiarity of being thickly pubescent within as well as outside; the pointed reflected teeth are a line in length: the tube of the corolla is 2 lines long, the segments of the border 3 lines; the stamens are $2\frac{1}{2}$ lines in length: the scarlet berry is nearly $3\frac{1}{2}$ lines long and $2\frac{1}{2}$ lines broad, and contains numerous small flattened reniform seeds, in which the slender terete embryo makes a gyration and a half, in a spiral form; the radicle, nearly equal in length to the cotyledons, points to the basal angle of the seed, avoiding the lateral hilum. This shrub is very common along the coast of Chile, where it is called *Piquillin*: it is no. 367 of Cuming's collection. I have not seen *L. gracile* of Meyen from the neighbourhood of Coquimbo, referred to this species by M. Dunal, which from the description appears to me to accord better with *L. salsum*, R. & P.

63. *Lycium pubescens* (n. sp.);—ramosissimum, omnino pubescens, ramulis approximatis, horizontaliter divergentibus, spinosis, valde foliosis; foliis minimis, fasciculatis, anguste linearibus, imo spathulatis, utrinque pubescentibus, pilis molli-bus articulatis glutinosis fere tomentosis; floribus paucis e fasciculis solitariis, brevissime pedunculatis; calyce urceolato, 5-fido, dentibus linearibus, acutis, corollæ tubo glabro, calyce 2-plo longiore, intus paullo sub faucem fasciculis 5 pilorum staminibus alternantibus donato, limbi laciniis 5, oblongis, margine vix ciliatis, tubo longioribus, staminibus 5, inæqualibus, exsertis, filamentis sub medium tubi insertis, hinc glabris et geniculatis, mox usque ad medium glandula lineari margine hirsuta donatis, superne glabris, 2 longioribus apicem laciniarum attingentibus; bacca parva, coccinea, calyce (laciniis summo conniventibus) cincta.—In Bonaria australi.—*v. s. in herb. Hook. Tweedie* (Patagonia).

This plant was collected by Tweedie in the southern portion

of the province of Buenos Ayres, towards the Rio Colorado and Bahia Blanca—a country always denominated by him “Patagonia.” It is wholly covered with a dense yellowish pubescence; the leaves are about $1\frac{1}{2}$ line long, $\frac{1}{4}$ line broad, the peduncle 1 line long, the calyx 1 line, the tube of the corolla $1\frac{3}{4}$ line, the segments of the border a trifle longer; the berry is $1\frac{1}{2}$ line in diameter, enclosed by the embracing lobes of the calyx*.

64. *Lycium Patagonicum* (n. sp.);—subinerme, subglabrum, ramosum, ramulis glabris, angulato-costatis, costis helvolis e cupula conspicua axillari utrinque decurrentibus; foliis alternis, rarius fasciculatis, parvis et ovatis, aut longiusculis et spatulato-linearibus, carnosulis, margine incrassatis, interdum glabriusculis et glanduloso-punctulatis, vel sparse pubescentibus, pilis brevissimis rigidis articulatis aut brachiatis, brevissime petiolatis; floribus solitariis, calyce 5-dentato, pedunculoque pubescente; corollæ tubo infundibuliformi, calyce fere duplo longiore, inferne e medio cylindrico, et hinc annulo carnosio crebre piloso extus donato, limbi laciniis 5, oblongis, margine ciliatis, tubo sublongioribus; staminibus in contractionem tubi insertis, filamentis imo geniculatis, et hinc glandula lineari plana glabra margine fimbriata signatis, subæqualibus, exsertis; bacca ovata, coccinea, calyce suffulta.—Patagonia.—*v. s. in herb. Hook.* (St. Elena) *Capt. King.*

A plant much resembling in appearance *L. infaustum*, but decidedly different in its floral structure. The leaves are from 2 to 5 lines long, 1 line broad; the pedicel is $2\frac{1}{2}$ lines, the calyx 2 lines, and the corolla $3\frac{1}{2}$ lines in length; the tube of the latter has five small tufts of hair alternating with the ciliated glands of the filaments; the berry is $2\frac{1}{2}$ lines long and 2 lines broad†.

65. *Lycium scoparium* (n. sp.);—inerme, divaricato- et virgato-ramosum, pilis brevissimis rigidis articulatis et brachiatis ubique hirtulum; ramulis angulato-costatis, glauco-roridis, axillis approximatis, cupulari-nodosis; foliis fasciculatis, anguste vel latiore linearibus, utrinque pubescentibus, in petiolum brevissimum attenuatis; floribus solitariis, breviter pedunculatis, calyce hirsuto, dentibus 5, lineari-acutis, tubo duplo longioribus, sinibus rotundatis, corollæ extus pubescentis laciniis 5, oblongis, patentibus, tubo infundibuliformi paullo longioribus, staminibus exsertis corollæ æquilongis, stylo istis longiore, bacca globosa, coccinea.—In Provinciis Mendozae et S. Ludovicæ Argentinorum.—*v. v.*

* A representation of this plant with analysis of its flower is shown (*loc. cit.*) in plate 72 E.

† This species with floral section is given (*loc. cit.*) in plate 72 F.

This is an extremely polymorphous species, under which I have united many forms which I formerly considered as distinct species, but as there is little apparent difference in their floral structure they must be regarded as mere varieties. They are all widely spread over the extensive desert plains that skirt the eastern side of the Andes; many even reach the Atlantic: they vary greatly in the shape and size of the leaves even in the same plant, in their more glabrous or pubescent habit, or in a greater abundance or paucity of leaves and flowers. This species is closely assimilated to *L. salsum* and *L. Chilense*, but still more approaching *L. Grevilleanum*. In that variety which I have taken as the type of the species, the whole plant is more pubescent, the leaves linear, somewhat acute, 2 to 5 lines long, $\frac{1}{2}$ to $\frac{3}{4}$ line broad, tapering into a short slender petiole: the peduncle is $\frac{3}{4}$ line long; the tube of the pubescent calyx is $\frac{1}{2}$ line long, its pointed linear teeth 1 line in length; the tube of the corolla is pubescent externally, $1\frac{1}{2}$ line long, the lobes of the border $2\frac{1}{4}$ lines long and $1\frac{1}{4}$ line broad; the nearly equal stamens, 3 lines in length, attain the ends of the segments: the ovary and style are $4\frac{1}{2}$ lines long. I found this plant on the Alto del Yeso, a low mountain range in the province of San Luiz, bordering on that of Mendoza. In this, as in all the other varieties, the stamens exhibit the same peculiar linear gland with fimbriated margins which I have described in the foregoing species, and similar tufts of hair upon the inner face of the tube, alternating with the staminal glands*.

Var. β . *lineare*: the leaves are here more copious, not so pubescent, 6 to 12 lines long, $\frac{1}{2}$ to 1 line broad, but in the same specimen often not more than 3 lines in length: this I collected also on the Alto del Yeso as well as the Coral de Desaguadero in the same province †.

Var. γ . *confertifolium*: here the leaves are broader, oblong, and more glandularly pubescent, 4 to 6 lines long, $1\frac{1}{2}$ line broad; the axils are closely approximated at the extremities of the branchlets, so that the fascicles of leaves appear crowded: the branchlets issue from the branches at right angles, or sometimes curving downwards; the cup-shaped nodes are unusually prominent. I found this variety in the province of Mendoza: it is the same as a specimen in Sir Wm. Hooker's herbarium collected by Dr. Gillies (*L. Hookerianum*, Gill. MSS. ‡).

Var. δ . *divaricatum*: a variety greatly resembling the last in its

* This plant with floral analysis is shown (*loc. cit.*) in plate 73 A.

† A figure of this variety with details is given (*loc. cit.*) in plate 73 B.

‡ A representation of this plant with details is given (*loc. cit.*), plate 73 C.

spreading branches and pale stem, with raised costate lines decurrent from each margin of the cupular nodes; the leaves are similar in form, less dense, quite glabrous, with the exception of the younger leaves, which are slightly pubescent; they are 4 to 7 lines long, 1 to 2 lines broad; the berry is globular, of a crimson colour, and supported by the cup-shaped toothed calyx. I found this growing abundantly in the Travesia or desert tract of Mendoza*.

Var. *e. affine*: ramulis subvirgatis, strictis, pallide pubescentibus, nodis axillaribus valde prominentibus; foliis fasciculatis, oblongis, utrinque acutis, rigidis, pallide flavescentibus, pilis brevibus brachiatis fere stellatis pubescentibus; floribus solitariis aut geminis, longiusculis, pedunculatis, calyce obconico, acute 5-dentato, pubescente, corolla pilosa.—*v. s. in herb. Hook.* (Mendoza) *Gillies sub nomine L. affine MSS.*

The leaves have a yellowish hue when dried; they are from 5 to 7 lines long, $1\frac{1}{2}$ to $1\frac{3}{4}$ line broad, the petiole being almost obsolete: the peduncle is erect, 2 lines long, the very pubescent calyx $1\frac{1}{2}$ line long; the tube of the corolla is $1\frac{1}{2}$ line long, thick, and contracted at base, where it is surrounded by a densely tomentose ring; the segments of the border are 2 lines long, oblong, and extremely pubescent†.

66. *Lycium Grevilleanum*, Gill. MSS. (n. sp.);—inermis, ramis griseis, ramulis pallidis, striatis, pubescentibus; foliis e nodis cupulatis fasciculatis, vel solitariis, spathulato-lanceolatis, vel linearibus, apice calloso submucronatis, margine cartilagineo, carnosus, utrinque ramulisque pilis brevissimis rigidiusculis brachiatis pubescentibus; floribus e fasciculis solitariis, pubescentibus, pedunculo tenui, calyce poculiformi, 5-dentato, dentibus acutis, corollæ tubo imo coarctato annulo barbato cincto, infundibuliformi, limbi laciniis ovato-oblongis, staminibus inclusis, inæqualibus, filamentis in coarctationem tubi insertis, hinc glandula lineari lævi margine dense fimbriata donatis, imo geniculatis, inde glabris, 2 faucem attingentibus, 3 paullo longioribus; stylo subexserto; bacca ovata, sicco fusco-brunnea, calyce suffulta.—In Provinciis Mendozæ et Tucuman Argentinorum.—*v. s. in herb. Hook.* (El Tortoral. *L. Grevilleanum*, Gill. MSS.)

This plant is of straggling bushy habit, and grows abundantly in the moist pasturages to the southward of Mendoza. It much

* This is shown with floral analysis (*loc. cit.*), plate 73 D.

† A figure of this variety with sectional details is given (*loc. cit.*), plate 73 E.

resembles *L. scoparium*, and might almost be considered as a variety of that species, which is equally abundant in drier places; it differs however in having the stamens and style much shorter. The leaves are 5 lines to 1 inch long, 1 to $1\frac{3}{4}$ line broad: the peduncle measures 3 lines; the calyx, $2\frac{1}{2}$ lines long, is divided nearly half-way into five narrow acute erect teeth; the corolla much resembles that of *L. Chilense* in form, size, and colour, and is equally pubescent externally, the tube being $1\frac{1}{2}$ line, and the segments of the border 2 lines in length; the tube a little above its base is much constricted, fleshy, and clothed by a densely barbate ring: the stamens are inserted a little above the constricted portion of the tube, where they are geniculated and glabrous; above this they are each furnished with an adnate fimbriated linear gland, forming together a fornix, that closes the mouth of the corolla over the ovary; the berry is nearly 4 lines long and 3 lines broad*.

67. *Lycium erosum* (n. sp.);—inermis, ramosum, ramulis gracilibus, virgatis, pallidis, striatis, nodis cupuliformibus; foliis alternis, lanceolato-ellipticis, acutiusculis, versus basin attenuatis, vel interdum rotundatis, breviter petiolatis, margine erosis, pilisque glandulosis ciliatis, vetustioribus utrinque glabris et punctis minutissimis elevatis albidis rugosis, junioribus pubescentibus; floribus solitariis pedunculatis, calycis laciniis 5 acutissimis subulato-linearibus tubo brevi costato duplo longioribus, margine ciliatis, sinibus rotundatis, membranaceis, corolla cærulea, lineis violaceis venosis, tubo brevi imo coarctato et annulo dense barbato extus cincto, limbi laciniis 5 oblongis tubo 3-plo longioribus, staminibus 5 longe exsertis, filamentis e coarctatione basali orta, hinc infra glandulam dilatatam crassam margine dense barbata geniculatis, 3 limbo æquilongis, 2 paullo brevioribus; bacca oblonga, calyce suffulta.—Fraysle Muerto, Prov. Buenos Ayres.—v. v.

Specimens of this very distinct species exist also in Sir Wm. Hooker's herbarium, collected by Tweedie in Buenos Ayres, Uruguay, Entre Rios, Banda Oriental, and the banks of the river Parana. It is readily distinguished by its rather large alternate leaves covered with minute white spots, with its margins always unevenly jagged; they are from 4 lines to $1\frac{3}{4}$ inch long, including the short petiole, and from 3 to 6 lines broad; they are sometimes small and more ovate; the older leaves are glabrous, those in the younger axils are large and generally alternate: the peduncle is $2\frac{1}{2}$ or 3 lines long; the calyx including its segments

* This plant, with analytical structure of the flower, is shown (*loc. cit.*) in plate 73 F.

is 2 lines long; the tube of the corolla is 2 lines, the lobes of its border 3 lines long; the tube is encircled in its constricted part by a narrow densely pilose ring, and is bearded internally between the insertion of the stamens; the filaments are thick, fleshy, and geniculated at their origin below the fleshy glands, which form a fornix closing the mouth of the corolla: the berry is crimson, oval, supported by the cup-shaped calyx with its teeth reflexed; it is 3 lines long and 2 lines broad*.

Species incertæ sectionis.

68. *Lycium Gilliesianum* (n. sp.). *L. rigidum*, Gill. MSS. non Thurb.;—imbricato-ramosum, spinosum, ramulis valde flexuosis, griseo-glaucis, spinis validis, longiusculis, divaricatis, approximatis, foliiferis; foliis fasciculatis, glaberrimis, carnosissimis, spathulato-oblongis, obtusis, in petiolum brevissimum attenuatis; floribus solitariis aut geminis, pedunculo glabro, folio tertio vel dimidio breviori; bacca ovali, calyce 5-dentato suffulta.—Prov. Mendocæ.—v. s. in herb. Hook. Copuncoa (Gillies MSS.).

This is a very distinct species, much resembling *L. fuscum*, and in all probability is referable to the same section: the branchlets are very flexuose and thick; the strong axillary spines, which are about $\frac{1}{2}$ an inch apart, and 1 or $1\frac{1}{2}$ inch long, bear fascicles of leaves at intervals of every 2 or 3 lines; the leaves are 4 to 7 lines long and 1 line broad; the peduncle is 2 lines long, the calyx about $1\frac{1}{2}$ line in length; the dark-coloured berry 3 lines long and 2 lines in diameter: flowers are wanting in the only specimen I have seen†.

69. *Lycium Americanum*, Jacq. Stirp. Amer. 50;—frutex orgyalis, elegans, diffusus, ramis teretibus, tenuibus, longissimis, leucophæis, spinis axillaribus, validis et foliiferis; foliis in axillis fasciculatis (3-7), cuneato-oblongis, sessilibus, crassiusculis; floribus solitariis, rarius binis, pedunculatis; calyce campanulato, æqualiter 5-dentato, corolla pollicari, purpureo-albida, tubo infundibuliformi calyce duplo longiore, limbi laciniis 5, rotundato-ovatis, patentissimis, tubo duplo brevioribus, staminibus infra faucem insertis, paullo exsertis, filamentis imo hirsutis, stylo longitudine staminum; bacca pisello minore, obcordato-turbinata, nigra, nitidissima, calyce dimidio brevior suffulta.—San Domingo, in arenosis maritimis.

* A drawing of this species with sectional details is given (*loc. cit.*) in plate 74 A.

† A figure of this plant is given (*loc. cit.*), plate 74 B.

This species seems to have escaped the notice of botanists, although published ninety years ago, as I do not find it included in the lists of any of the earlier authors, nor in Steudel, Walpers, or yet more modern arrangements. The characters given by Jacquin appear to conform with those of *Lycium*: the only genus with which it is likely to be confounded is *Dunalia*. It is described as a handsome shrub with crowded leaves, and its flowers must be the largest in the genus. From 5 to 7 leaves are fasciculated in each axil; they are sessile, tapering from the summit to the base, quite smooth, fleshy, nearly an inch long; the calyx is 3 lines long, the corolla is slender and an inch in length.

Lycia exclusa.

<i>L. aggregatum</i> , R. & P.	= <i>Acnistus aggregatus</i> , Miers.
<i>L. angustifolium</i> , Mill.	= <i>Lycium tenue</i> , Willd.
<i>L. apiculatum</i> , Dun.	= <i>Lycium cinereum</i> , Thunb.
<i>L. arborescens</i> , Hook.	= <i>Acnistus aggregatus</i> , Miers.
<i>L. Barbarum</i> , Lour.	= <i>Lycium vulgare</i> , Dun.
<i>L. barbatum</i> , Thunb.	= <i>Plectronia ventosa</i> , L.
<i>L. Boerhaavifolium</i> , L.	= <i>Grabowskya Boerhaavifolia</i> .
<i>L. campanulatum</i> , E. Mey.	= <i>Lycium Afrum</i> , L.
<i>L. canum</i> , Gill.	= <i>Lycium Chilense</i> , Miers.
<i>L. Capense</i> , Mill.	= <i>Lycium tetrandrum</i> , Thunb.
<i>L. capsulare</i> , L.	= a genere et ab ordine certe expellendum.
<i>L. Chinense</i> , L.	= <i>Lycium vulgare</i> , Dun.
<i>L. ciliatum</i> , Schl.	= <i>Salpiehroma ciliatum</i> , Miers.
<i>L. Cochinchinense</i>	= <i>Lycium vulgare</i> , Dun.
<i>L. cordatum</i> , Mill.	= certe non <i>Lycium</i> ob foliis oppositis cordatisque.
<i>L. cornifolium</i> , H. B. K.	= <i>Chænesthes cornifolia</i> , Miers.
<i>L. distichum</i> , Mey.	= e genere et forsan ab ordine repellendum*.
<i>L. foetidum</i> , L.	= <i>Lerissa foetida</i> .
<i>L. floribundum</i> , H. B. K. (non Dun.)	= <i>Acnistus floribundus</i> , G. Don.
<i>L. fuchsoides</i> , H. B. K. }	= <i>Chænesthes fuchsoides</i> , Miers.
<i>L. fuchsoides</i> , hort. }	

* This plant, found by Meyen in the Cordillera of Southern Peru, has been referred to *Lycium* and *Grabowskya*, but it appears to me that it cannot belong to either: its long simple distichous patent branches, terminating in a spine, indicate an opposition, not an alternation of its axils and leaves; its leaves are described as minute, but not as being clustered or fasciated; the corolla of its solitary flowers is caeruleous, with a large funnel-shaped limb and small erect segments, together with included stamens. There is little here conforming to *Lycium* or *Grabowskya*. In its peculiar habit, its minute leaves, its calyx, the colour and shape of its flowers, it approaches more closely to the curious Bignoniaceous plant which I found in the Cordillera of Mendoza, and which I described under the name of *Orycladus aphyllus*, a supposition rendered still more probable from the analogous locality of its origin.

- L. gesnerioides*, H. B. K. = *Chænesthes gesnerioides*, Miers.
L. gracile, Meyen = *Lycium salsum*, R. & P.
L. grandiflorum, Willd. = *Acnistus grandiflorus*, Miers.
L. Guayaquilense, H. B. K. = *Acnistus Guayaquilensis*, G. Don.
L. halimifolium, Mill. = *Lycium barbarum*, L.
L. heterophyllum, Murr. = *Grabowskya Boerhaavifolia*, W.-
 Arn.
L. horridum, Thunb. = *Lycium tetrandrum*, Thunb.
L. horridum, H. B. K. = *Lycioplesium horridum*, Miers.
L. Indicum, Retz. (non R. Wight) = *Lerissa foetida*, Comm.
L. inerme, L. f. = *Plectronia ventosa*, L.
L. Japonicum, Thunb. = *Lerissa foetida*, Comm.
L. lanceolatum, Poir. = *Lycium vulgare*, Dun.
L. Loxense, H. B. K. = *Chænesthes Loxensis*, Miers.
L. macranthum, Buching. = *Rhizogonum trichotomum*, Burch.
L. macrophyllum, Benth. = *Acnistus Benthami*, Miers.
L. Mediterraneum, Dun. = *Lycium Europæum*, L.
L. megistocarpum, Dun. = *Lycium vulgare*, Dun.
L. Meyenianum, N. ab E. = *Lycioplesium Meyenianum*, Miers.
L. microphyllum, H. B. K. = *Lycioplesium horridum*, Miers.
L. microphyllum, Duh. = *Lycium carnosum*, L.
L. nutans, Pöp. = *Lycium Chilense*, Miers.
L. obovatum, Buching. = *Ehretia Capensis*, Meisn.
L. obovatum, R. & P. = *Lycioplesium obovatum*, Miers.
L. obtusum, Willd. = *Chænesthes umbrosa*, Miers.
L. ovale, Willd. } = *Chænesthes cornifolia*, Miers.
L. ovatum, Willd. }
L. ovatum, Duh. = *Lycium vulgare*, Dun.
L. parvifolium, R. & Sch. = *Lycioplesium pulchellum*, Miers.
L. propinquum, G. Don = *Lycium Afrum*, L.
L. pulchellum, Mart. & Gall. = *Lycioplesium pulchellum*, Miers.
L. Quitense, Hook. = *Pœcilochroma Quitense*, Miers.
L. quadrifidum, Moçino et Sessè = *Lycium Carolianum*, Mich.
L. Ruthenicum, Dun. (non Murr.) = *Lycium Tataricum*, Pall.
L. scabrum, N. ab E. = *Lycium scoparium?* Miers.
L. salicifolium, Mill. = *Lycium Europæum*, L.
L. salsum, Bartr. (non R. & P.) = *Lycium Carolianum*, Mich.
L. serpyllifolium, Dun. = *Peliostomum serpyllifolium*,
 Miers.
 = *Lycium barbarum?* L.
 = *Lycium ignarum*, Miers.
 = *Acnistus spathulatus*, G. Don.
 = *Dunalia acnistoides*, Miers.
 = *Lycium vulgare*, Dun.
 = *Lycium oxycarpum?* Dun.
 = *Lycium vulgare*, Dun.
 = *Lycium vulgare*, Dun.
 = *Acnistus umbellatus*, Miers.
 = *Chænesthes umbrosa*, Miers.